

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:	George H. Forman et al.	§	Art Unit:	2163
		§		
Serial No.:	10/733,750	§		
		§	Examiner:	Michael Le
Filed:	December 11, 2003	§		
		§		
For:	Data Cleaning	§	Atty. Dkt. No.:	200308713-1
		§		(HPC.0395US)
		§		
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**Mail Stop Appeal Brief-Patents**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313

**REQUEST FOR REHEARING**

Pursuant to 37 C.F.R. § 41.52, Appellant hereby requests rehearing regarding points believed to have been misapprehended or overlooked in the Decision on Appeal dated March 8, 2010.

**A. THE ASSERTED COMBINATION OF HAIMOWITZ AND COMMONS FAILS TO DISCLOSE OR HINT AT THE SUBJECT MATTER OF CLAIM 1.**

With respect to independent claim 1, it is respectfully submitted that the Decision on Appeal has overlooked or misapprehended the following point: the asserted combination of Haimowitz and Commons clearly fails to disclose or hint at heuristic-based routines to iteratively **clean** the newly received data records by modifying the newly received data records in response to no matching occurring between the received data records and key records in the persistent table.

The Decision on Appeal did not provide any rationale regarding how either Haimowitz or Commons provides any teaching or hint of the foregoing subject matter of claim 1. Except for a general statement that the Decision on Appeal has adopted the Examiner's findings and conclusions set forth in the Examiner's Answer (*see* Decision on Appeal, at 9), no specific explanation was provided by the Decision on Appeal regarding how the teachings of Haimowitz or Commons can be interpreted to disclose the foregoing element of claim 1. It is believed that the Decision on Appeal has either overlooked the foregoing subject matter, or in the alternative, the Decision on Appeal has misapprehended the language of the claim. The foregoing claim element specifically define that newly received data records are cleaned by **modifying** them.

Since the Decision on Appeal did not separately explain how Haimowitz or Commons teaches the foregoing claimed subject matter, Appellant will refer to the arguments made in the Examiner's Answer, which were adopted by the Decision on Appeal to affirm the final rejections.

The Examiner's Answer conceded that Haimowitz fails to disclose iteratively cleaning the newly received data records by modifying the newly received data records in response to no match occurring between the received data records and the key records in the persistent table. Examiner's Answer at 3. Instead, the Examiner's Answer argued that Commons discloses the foregoing feature of claim 1. *Id.* at 3-4. The Examiner's Answer argued that Commons discloses generating a first search key to perform a search and upon no match being found, **generating a second search key with less specific information**. Examiner's Answer at 17. The Examiner argued that the first and second search keys noted above are generated based on the same information, but that less specific information is used for each iteration of the search key. *Id.*

To the extent that the Examiner's Answer (and the Decision on Appeal) is arguing that successive generations of different search keys based on a certain set of information constitutes iterative modification of newly received data records, such analysis is clearly flawed. The passages of Commons relied upon by the Examiner's Answer provide the following specific teachings.

The cited passages of Commons refer to an iterative process of finding a matching database record relating to an unidentified DVD. A first search key is initially used to search for a matching record in the database. Commons, ¶ [0058]. If a match is not found using the first search key, a second search key is generated, which has less specific information than the first search key. Commons, ¶ [0060]. If no match is found using the second search key, a third search key is generated from the number of chapters and frames per chapter of a DVD title. Commons, ¶ [0061]. If no match is found using the third search key, then a fourth search key is generated using a hash code that is less unique than the hash code used in the third search key. Commons, ¶ [0062]. If the fourth search key does not produce a match, then a fifth search key is generated based on the title of the unidentified DVD. Commons, ¶ [0063].

What Commons teaches is the fact that successively less unique search keys are generated to find a matching database record. However, **generating** successively less unique search keys, as performed by Commons, based on information of an unidentified DVD, is not the same as the subject matter of claim 1, which recites heuristic-based routines to match newly received data records to the key records in the persistent table, the heuristic-based routines to iteratively clean the newly received data records by **modifying the newly received data records** in response to no match occurring between the received data records and the key records in the persistent table.

In Commons, the first search key is based on the total number of titles, chapters per title, and number of frames per chapter. Commons, ¶ [0058]. The second search key is generated based on non-uniquely identifying information, such as be concatenating a predetermined number of characters of the volume name and hash-coded time stamp information. Commons, ¶ [0060]. The third search key is generated from the number of chapters and frames per chapter of the first title with the largest number of chapters on the unidentified DVD. Commons, ¶ [0061]. The fourth search key uses the number of chapters and frames per chapter of the first title with the largest number of chapters on the unidentified DVD, but the hash code used in the fourth search key permits the number of frames per chapter to vary by as much as 100 frames. The fifth search key is generated based on the title of the unidentified DVD. Thus, it is clear that what Commons contemplates is the **generation** of different search keys from **different combinations** of information or using different hash coding to achieve different search keys. Generating different search keys is clearly not the same as cleaning a newly received data record by **modifying** the newly received data record, as recited in claim 1.

The Decision on Appeal did not explain how generating successive different search keys from different combinations of information can constitute cleaning a newly received data record by modifying the newly received data record. It is clear that generating keys based on the information relating to the unidentified DVD correspond to separate generations of different keys using different combinations of information. There is no modifying of newly received data records performed in Commons.

On page 6 of the Decision on Appeal, the Board quoted from the Abstract of Commons. The Abstract of Commons refers to the teachings of Commons noted above by Appellant that refer to generating different search keys based on different combinations of information of an

unidentified DVD—no iterative modification of newly received data records is performed in Commons. The finding made by the Board with respect to Commons on page 6 of the Decision on Appeal does not even use the word “modifying,” which is an express word of the claim.

Since it appears that the Decision on Appeal has either misapprehended or overlooked the specific requirement in claim 1 that heuristic-based routines are to iteratively clean the newly received data records by **modifying** the newly received data records in response to no match occurring between the received data records and the key records in the persistent table, Appellant respectfully requests reconsideration of the affirmance of the final rejection of claim 1 over Haimowitz and Commons. Reversal of the final rejection of claim 1 is respectfully requested.

**B. THE ASSERTED COMBINATION OF HAIMOWITZ AND COMMONS FAILS TO DISCLOSE OR HINT AT THE SUBJECT MATTER OF CLAIM 23.**

It is respectfully submitted that the Decision on Appeal has also misapprehended or overlooked certain subject matter of independent claim 23 in affirming the final rejection of the claim over Haimowitz and Commons.

Claim 23 recites receiving a dirty data record related to at least one entity of a plurality of entities, comparing the dirty data record to a tabulation of crude keys that each has a pointer to an associated one of clean data files in a database, and **cleaning** the dirty data record by **modifying the dirty data record** in response to determining that no match is present based on the comparing. As argued in the Appeal Brief, it is clear that the combination of Haimowitz and Commons fails to disclose **cleaning** the dirty data record by **modifying** the dirty data record. The Examiner's Answer (as adopted by the Decision on Appeal) argued that the first search key that is generated in Commons is the "dirty" data record, and that this first search key is "cleaned" when the second search key is generated from less unique information. Examiner's Answer at 20. This finding is clearly erroneous, as Commons clearly does not provide any hint that the first search key is **modified** to produce the second search key. In Commons, the successive search keys are generated based on different combinations of information of an unidentified DVD. There is no hint whatsoever that a first search key, equated by the Examiner's Answer with the "dirty data record" of claim 23, is modified to produce a second search key.

The findings made in the Decision on Appeal with respect to Commons merely refer to generating successive keys based on less specific information. Decision on Appeal at 6. These findings do not address the specific language of claim 23 that specifies that a received dirty data record (which is to be compared to a tabulation of crude keys each having a pointer to an

associated clean data file) is cleaned by modifying the dirty data record in response to determining that no match is present based on the comparing.

Thus, it appears that the Decision on Appeal has also overlooked or misapprehended the subject matter of claim 23.

Therefore, Appellant respectfully requests that the Board reconsider the affirmance of the final rejection of claim 23. Reversal of the final rejection of claim 23 over Haimowitz and Commons is respectfully requested.

**C. THE ASSERTED COMBINATION OF HAIMOWITZ, COMMONS, AND KUGA FAILS TO DISCLOSE OR HINT AT THE SUBJECT MATTER OF CLAIM 9.**

The Decision on Appeal also appears to have misapprehended or overlooked certain subject matter of independent claim 9. As with the other claims, the Decision on Appeal adopted the arguments made in the Examiner's Answer to affirm the rejection of claim 9 over Haimowitz, Commons, and Kuga.

With respect to claim 9, the Examiner's Answer conceded that Haimowitz does not disclose the following element of claim 9: upon no match, adding the cleaned input data record as a new clean data file with an associated indexing record therefor. Examiner's Answer at 11. However, the Examiner's Answer cited Kuga as purportedly disclosing the second element identified above as missing from Haimowitz. *Id.* at 11-12.

Contrary to the assertion by the Examiner's Answer, Kuga fails to teach or hint at adding a cleaned input data record as a new indexing record for an associated one of the clean data files upon no match. The Examiner cited column 13, lines 26-45, of Kuga, as disclosing this claim element. The cited passage of Kuga refers to generating an index from incoming text when a text portion from the incoming text does not match an exact entry in a dictionary, but matches a variant that is found in the dictionary. There is no hint by Kuga of adding a cleaned input data record as a new indexing record for the associated one of clean data files.

As explained in column 13 of Kuga, if an incoming text portion does not match an exact entry in a dictionary, the matching module 38 checks the "inflection" or "variant" field of the dictionary 40. Kuga, 13:25-28. An inflection/variant generator 42 generates an inflection of the standard entry of the dictionary for a variant of the spelling based on the applied information and provides the inflection/variant information to the matching module 38 for matching. Kuga,



13:33-36. In one example, Kuga notes that if “On-Kun Input” is compared with “On-Kun-Input” in the dictionary, no match would occur in a first comparison. Kuga, 13:37-40. At this time, Kuga teaches that the inflection/variant generator 42 would generate the expression “On-Kun Input” from the content of the variant field in the dictionary 40. Kuga, 13:40-43. This would then cause a match to occur, which would cause the incoming text portion “On-Kun Input” to be adopted as an entry of the index and stored in the index entry storage 24. Kuga, 13:43-45. Note that the original text “On-Kun Input” has not been cleaned; rather, it is the original text portion “On-Kun Input” that is stored.

The Examiner’s Answer further pointed to column 13, lines 51-53, as purportedly disclosing the foregoing subject matter of claim 9—however, this passage of Kuga refers to a task performed when matching is detected (rather than no match, as claimed). In other words, the teaching of Kuga in column 13, lines 51-53, relating to an action performed when no match occurs has nothing to do with the following subject matter of claim 9: upon no match, adding the cleaned input data record as a new clean data file with an associated indexing record therefor.

The Decision on Appeal noted that Kuga’s Abstract indicates that the generation of indexes is performed quickly and accurately according to database analyzing techniques. Decision on Appeal at 6. The Decision on Appeal also referred to Figs. 7, 14, and 28 as illustrating the use of inflection, variance, and syntactic analyses done in an interpretative manner to determine matches and close matches. *Id.* However, the Decision on Appeal did not address the specific element of claim 9 noted above, in which a cleaned input data record is added as a new clean data file with an associated indexing record, upon no match being detected.

Since it appears that the Decision on Appeal has misapprehended or overlooked the foregoing subject matter of claim 9, it is respectfully requested that the Board reconsider the affirmance of the final rejection of claim 9. Reversal of the final rejection of claim 9 over Haimowitz, Commons, and Kuga is respectfully requested.

**D. CONCLUSION**

In view of the foregoing, it is respectfully requested that the Board reconsider the affirmance of the final rejections. Reversal of all final rejections is respectfully requested.

The Commissioner is authorized to charge any additional fees and/or credit any overpayment to Deposit Account No. 08-2025 (200403039-1).

Respectfully submitted,

Date: May 7, 2010

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